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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/397,675	09/16/1999	MASANORI YACHI	991021	9058

23850 7590 10/03/2002

ARMSTRONG, WESTERMAN & HATTORI, LLP
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EXAMINER

KWOK, HELEN C

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/397,675

Applicant(s)

Yachi et al.

Examiner

H. Kwok

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on July 31, 2002 and August 21, 2002

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above, claim(s) 3-18 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1 and 2 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

6) ☐ Other:

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 31, 2002 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, the phrase "the not permanently oscillating transducer" lacks antecedent basis. Furthermore, it is not clear what one means by the phrase. Does one mean that the transducer does not oscillate, move, and vibrate. If so, this appears to the Examiner that the transducer is no more than a cantilever or support block to support the mass portion. Please clarify.

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Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0791832 (Heinouchi).

With regards to claims 1-2, Heinouchi discloses an acceleration sensor having a vibrator with an attached weight comprising, as illustrated in Figures 1-3, a base 32; a transducer 12 having a plurality of piezoelectric devices positioned therein (the Examiner is considering the vibrating member 12 as the transducer since the piezoelectric devices serves as a driving means) is supported at the base 32; a weight portion 20 consisting of a weight is connected to the transducer and supported at a position different from the center of gravity of the vibrator (i.e. the weight portion is attached at an end portion of the transducer as observed in the figures); a detecting section 24a-24d (since 24a-24d is used for both driving and detecting) is installed on the base (as one observed, the detecting section, which is positioned on the transducer 12, is placed on the base 32) for detecting the amount of characteristic corresponding to a torsion of the transducer caused by an angular moment upon application of an acceleration in one direction to

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the transducer and the weight portion wherein a face of the transducer is made flush with a face of the weight portion (As observed in the figures, a face of the weight 20 is made flush with a face of the transducer 12). (See, column 4, line 12 to column 6, line 39).

Applicants' comments with regards to a torsion vibration is caused only when acceleration is caused have been considered. As stated in column 6, lines 10-19, the transducer 12 is warped when acceleration is perpendicularly applied. There is no claim language in the presently claimed claims stating that the transducer does not vibrate or does not vibrate before detecting acceleration as presented in the remarks made by Applicants in the Amendment filed July 31, 2002. The claims claim that the amount of torsion of the transducer caused by an angular moment is detected when acceleration is applied. Hence, this is described in the Heinouchi references in column 6, lines 10-19 as stated above.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,848,157 (Kobayashi).

Kobayashi discloses an acceleration detecting device comprising, as illustrated in Figures 1-3 and 12, a base 23 (considering the frame as the base); a transducer 11 (the Examiner is considering the beam 11 as the transducer) is supported at the base 23; a weight portion 14 consisting of a weight 15 is connected to the transducer 11 and supported at a position different from the center of gravity of the vibrator (i.e. the weight portion is attached at an end portion of the transducer as observed in the figures); a detecting section 16a-16d is installed on the base (as

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one observed, the detecting section, which is positioned on the transducer 11, is placed on the base 23) for detecting the amount of characteristic corresponding to a torsion of the transducer caused by an angular moment upon application of an acceleration in one direction to the transducer and the weight portion wherein a face of the transducer is made flush with a face of the weight portion (As observed in the figures, a face of the weight is made flush with a face of the transducer). (See, column 2, line 56 to column 3, line 68; column 5, lines 29-50).

Response to Amendment

7. Applicant's arguments with respect to claims 1-2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to acceleration sensor for measuring deflection of the beam.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Kwok whose telephone number is (703) 308-8149.

HELEN KWOK
PRIMARY EXAMINER

